

IN THE CLAIMS:

The following listing of claims replaces all previous listings of claims.

1 – 24. (Canceled)

25. (New) A method for detecting a folate receptor (FR) autoantibody in a subject, comprising:

- a. obtaining from a subject a biological sample suspected of comprising a FR autoantibody;
- b. providing an affinity matrix comprising apoFR ,
- c. contacting the affinity matrix with the biological sample under conditions suitable for forming an autoantibody-apoFR complex;
- d. dissociating and removing from the affinity matrix any apoFR-bound autoantibody; and
- e. determining whether or not the dissociated autoantibody that was removed from the affinity matrix has an effect on folate uptake.

26. (New) The method of claim 25, wherein the affinity matrix comprising apoFR, is a cell membrane from a mammalian cell or tissue that produces apoFR.

27. (New) The method of claim 26 wherein the cell or tissue is a human cell or tissue.

28. (New) The method of claim 26 wherein the cell or tissue is placental.

29. (New) The method of claim 26 wherein the cell is a cultured ED27 cell or a cultured KB cell.

30. (New) The method of claim 25, wherein the affinity matrix comprises apoFR covalently coupled to a matrix.

31. (New) The method of claim 25, wherein the biological sample is a subject's serum.
32. (New) The method of claim 25, wherein the biological sample is an extract of a subject's cell or tissue.
33. (New) The method of claim 25, wherein determining the effect of the dissociated autoantibody on folate uptake in cells expressing FR comprises comparing the uptake of labeled folate in the presence and absence of the dissociated autoantibody.
34. (New) The method of claim 33, wherein the effect of the dissociated autoantibody on folate uptake is determined in ED27 cells or KB cells.
35. (New) The method of claim 25, wherein before contacting the affinity matrix with the biological sample, said biological sample undergoes the steps of;
- a. acidifying the biological sample; and
 - b. removing any unbound folic acid from the biological sample.
36. (New) A test kit for detecting autoantibodies to a folate receptor (FR) in a sample obtained from a subject comprising;
- a. a detectable amount of purified human FR;
 - b. an anti-human immunoglobulin molecule conjugated to an enzyme selected from the group consisting of a peroxidase or a phosphatase, a β -galactosidase molecule, a β -lactamase and a luciferase, or alternatively an anti-human immunoglobulin conjugated to a fluorescent compound;
 - c. optionally, an amount of reagents sufficient for detecting the enzyme to which the anti-human immunoglobulin is conjugated, and

- d. a known human autoantibody to FR as a positive control, and a known control antibody that does not bind to FR.

37. (New) The test kit of claim 36, wherein human FR is human apoFR.

38. (New) The test kit of claim 36, wherein the subject's biological sample is serum, and further wherein a predetermined amount of the detectable purified human FR is attached to an insoluble support.

39. (New) The test kit of claim 38, wherein the insoluble support is a surface of a well of a multi-well plate.

40. (New) The test kit of claim 36, wherein the fluorescent compound is selected from the group consisting of fluorescein isothiocyanate (FITC), rhodamine, fluorescent lanthanides, or green fluorescent protein.

41. (New) The test kit of claim 36, further comprising,

- a. folic acid dissociation buffer; and
- b. charcoal coated with either dextran or hemoglobin.

42. (New) The test kit of claim 36, wherein the peroxidase is horseradish peroxidase.

43. (New) The test kit of claim 36, wherein the phosphatase is alkaline phosphatase.

44. (New) A test kit for detecting autoantibodies to folate receptor (FR) in individuals at risk of experiencing a folate-sensitive abnormality, the kit comprising:

- a. an amount of purified human FR associated immobilized to a substrate;
- b. an anti-human immunoglobulin molecule conjugated to horse radish peroxidase;
and
- c. a known human autoantibody to FR as a positive control, and a known negative control antibody that does not bind to FR.

45. (New) The test kit of claim 44, wherein the folate-sensitive abnormality is infertility, spontaneous abortion, male sterility, unsuccessful in vitro fertilization procedure, neurologic disorders, or impaired absorption of folic acid, or a pregnancy with fetal complications.